

REMARKS

This application has been reviewed in light of the Office Action dated July 9, 2003. Claims 101-124 are presented for examination, of which claims 101, 104, 110-112, 115, and 121-124 are in independent form. Claims 101-113, 115-119, and 121-124 have been amended to define more clearly what Applicant regards as his invention. Favorable reconsideration is requested.

Applicants notes with appreciation the indication that claims 106 and 117 would be allowable if rewritten so as not to depend from a rejected claim, and with no change in scope. These claims have not been so rewritten because, for the reasons given below, their base claims are believed to be allowable.

Claims 101-103, 110, 112-114, 121, and 123 were rejected under 35 U.S.C. § 103(a) as being unpatentable over JP11-110143-A (*Yoshiaki*) in view of U.S. Patent No. 6,134,580 (*Tahara et al.*), claims 104, 105, 107, 109, 111, 115, 116, 118, 120, 122, and 124 were rejected under Section 103(a) as being unpatentable over *Yoshiaki* in view of U.S. Publication No. US 2002/0042810 A1 (*Minami et al.*), and claims 108 and 119 were rejected under Section 103(a) as being unpatentable over *Yoshiaki* and *Tahara et al.* in view of *Minami et al.*

As shown above, Applicant has amended independent claims 101, 104, 110-112, 115, and 121-124 in terms that more clearly define what Applicant regards as his invention. Applicant submits that these amended independent claims, together with the remaining claims dependent thereon, are patentably distinct from the cited prior art for at least the following reasons.

The aspect of the present invention set forth in claim 101 is an image processing apparatus which can be connected to an external apparatus via a network. The image processing apparatus includes reception control means, control means, memory management means, transmission control means, and obtainment means. The reception control means control a reception process of receiving agent information including a command train in which a work flow is programmed describing a series of processes to be executed in a plurality of image processing apparatuses. The work flow further describes a first image process to be executed in the image processing apparatus and a second image process to be executed in an external image processing apparatus which is different in mechanism from the image processing apparatus. The work flow can be programmed such that the second image process is executed after execution of the first image process. The control means controls an image processing mechanism of the image processing apparatus by executing, based on the command train included in the received agent information, a control program that controls the image processing mechanism. The memory management means manages a memory area for executing the command train included in the received agent information. The transmission control means controls, responsive to the control means terminating execution of the control program based on the command train, a transmission process of transmitting a process end notice to the external apparatus, and obtainment means obtains a reply to the process end notice from the external apparatus. The memory management means releases the memory area for executing the command train included in the received agent information in response to the obtainment means obtaining the reply from the external apparatus.

One important feature of claim 101 is that the work flow describes a series of processes to be executed in a plurality of image processing apparatuses, and further describes a first image process to be executed in the image processing apparatus and a second image process to be executed in an external image processing apparatus which is different in mechanism from the image processing apparatus. The work flow can be programmed such that the second image process is executed after execution of the first image process. That is, the work flow can be executed as a first image process in a first image processing apparatus and then a second image process in a second image processing apparatus which is different in mechanism from the first image processing apparatus. This is especially effective in cases where the first image processing apparatus is a printing apparatus and the second image processing apparatus is a filing apparatus. It is therefore possible to describe, for example, as the work flow, an image process of forming an image with the printing apparatus and an image process of filing the formed image data as electronic data in the filing apparatus. Support for this feature can be found at least in Figure 14 and the accompanying description in the specification.¹

Yoshiaki relates to combining printers where some of the printers are connected to a network, where a document that is to be printed is divided into various print jobs. The Office Action correctly states that *Yoshiaki* fails to disclose the transmission control means, and the obtainment means of claim 101. Further, nothing has been found in *Yoshiaki* that would teach or suggest a work flow describing a series of processes to be executed in a plurality of image processing apparatuses, and further describing a first image

¹/It is to be understood, of course, that the claim scope is not limited by the details of the described embodiments, which are referred to only to facilitate explanation.

process to be executed in the image processing apparatus and a second image process to be executed in an external image processing apparatus which is different in mechanism from the image processing apparatus, where the work flow can be programmed such that the second image process is executed after execution of the first image process, as recited in claim 101.

For at least the above reasons, Applicant submits that claim 101 is patentable over *Yoshiaki*, taken alone.

Tahara et al. is cited in the Office Action as overcoming the deficiencies of *Yoshiaki*. *Tahara et al.* relates to a data-processing apparatus which processes information that exists in distributed form on a network. However, nothing has been found in *Tahara et al.* that would teach or suggest a work flow describing a series of processes to be executed in a plurality of image processing apparatuses, and further describing a first image process to be executed in the image processing apparatus and a second image process to be executed in an external image processing apparatus which is different in mechanism from the image processing apparatus, where the work flow can be programmed such that the second image process is executed after execution of the first image process, as recited in claim 101.

Accordingly, Applicant submits that claim 101 is clearly allowable over *Yoshiaki* and *Tahara et al.*, taken separately, or in any permissible combination (if any).

Independent claims 110, 112, 121, and 123 are system, method, computer program product, and computer-readable memory medium claims, respectively, corresponding to apparatus claim 101, and are believed to be patentable for at least the same reasons as discussed above in connection with claim 101.

The aspect of the present invention set forth in claim 104 is an image processing apparatus which can be connected to a network. The image processing apparatus includes reception control means, control means, execution means, and transmission control means. The reception control means controls a reception process of receiving agent information including a command train in which a work flow is programmed describing a series of processes to be executed in a plurality of image processing apparatuses. The work flow further describes a first image process to be executed in the image processing apparatus and a second image process to be executed in an external image processing apparatus which is different in function from the image processing apparatus, and wherein the work flow can be programmed such that the second image process is executed after execution of the first image process. The control means controls an image processing mechanism of the image processing apparatus by executing, based on the command train included in the received agent information, a control program that controls the image processing mechanism. The execution means executes one of the series of processes described in the work flow to be executed in the image processing apparatus. The transmission control means controls, responsive to the execution means terminating execution of the one process, a transmission process of automatically transmitting the agent information from the image processing apparatus to the external image processing apparatus so as to cause the external image processing apparatus to execute the command train based on the work flow.

One important feature of claim 104 is that the work flow describes a series of processes to be executed in a plurality of image processing apparatuses, and further describes a first image process to be executed in the image processing apparatus and a

second image process to be executed in an external image processing apparatus which is different in function from the image processing apparatus, and wherein the work flow can be programmed such that the second image process is executed after execution of the first image process.

For reasons substantially similar to those discussed above in connection with claim 101, Applicant submits that claim 104 is patentable over *Yoshiaki*, taken alone.

Minami et al. relates to a mobile agent technique whereby a mobile agent is moved to a remote server that exists on a network in a distributed computer environment to prepare an instruction at the remote server. In the *Minami et al.* system, a mobile agent prepares a clone of the template, moves to another place, or fuses clones, where the template is linked to the execution of an activity. However, nothing has been found in *Minami et al.* that would teach or suggest a work flow describing a series of processes to be executed in a plurality of image processing apparatuses, and further describing a first image process to be executed in the image processing apparatus and a second image process to be executed in an external image processing apparatus which is different in function from the image processing apparatus, and wherein the work flow can be programmed such that the second image process is executed after execution of the first image process, as recited in claim 104.

Accordingly, Applicant submits that claim 104 is clearly allowable over *Yoshiaki* and *Minami et al.*, taken separately, or in any permissible combination (if any).

Independent claims 111, 115, 122, and 124 are system, method, computer program product, and computer-readable memory medium claims, respectively,

corresponding to apparatus claim 104, and are believed to be patentable for at least the same reasons as discussed above in connection with claim 104.

The other rejected claims in this application depend from one or another of the independent claims discussed above, and, therefore, are submitted to be patentable for at least the same reasons. Since each dependent claim is also deemed to define an additional aspect of the invention, individual reconsideration of the patentability of each claim on its own merits is respectfully requested.

In view of the foregoing amendments and remarks, Applicant respectfully requests favorable reconsideration and early passage to issue of the present application.

Applicant's undersigned attorney may be reached in our New York Office by telephone at (212) 218-2100. All correspondence should continue to be directed to our address listed below.

Respectfully submitted,


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